

5-YEAR PLAN GEOTECHNICAL ENGINEER

This five-year developmental plan provides a sample for the civil or geotechnical engineering individual aspiring to start a career in one of the U S Army Corps of Engineer South Pacific Division Districts. The individual and the supervisor will develop a more comprehensive plan based on more formal Corps guidance.

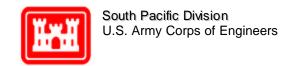
<u>Year 1</u>. Months 0-3, Work under the leadership of a registered civil engineer with a geotechnical background. Read and become familiar with Corps ER, EM, ETL, etc. Perform geotechnical analyses. Perform site visits, slope stability and foundation analyses. Prepare soil-boring logs. Months 4-9. Obtain rotational assignments in various functional areas. Months 10-12. Attend Corps PROSPECT training- Computer Applications in Geotechnical Engineering

<u>Year 2-3</u>. Develop plans of field soil investigations. Perform site assessments, geotechnical analyses and scopes of work for AE soil boring work orders. Perform field and laboratory soil and material testing thru vendor or Corps PROSPECT training. Conduct geotechnical site visits during construction. Write sections of geotechnical appendix. Attend training in shear strength of soils and slope stability analysis. Take AE Contract PROSPECT training. Obtain training in unit price cost estimating. Acquire developmental assignment in civil design. Take steps to obtain professional registration.



Photo taken from waste fill area, downstream of derrick stone, placed as spillway energy dissipater. Photo shows downstream slope and concrete chute spillway over Los Alamos Dam.

<u>Year 4</u>. Perform geotechnical analyses for more complex projects. Prepare scopes of work and cost estimates for AE geotechnical analyses and design. Prepare laboratory testing schedules and requirements. Interpret laboratory test results. Obtain training in seepage and seismic design.



Acquire developmental assignment in construction to enhance geotechnical construction experience and construction contract administration experience.

<u>Year 5</u>. Perform analyses and assessments for complex projects. Serve as lead geotechnical engineer for major projects. Determine project scope of work and prepare budget estimates. Prepare geotechnical reports and appendices. Prepare drawings and technical sections to specifications of contract documents. Apply independent judgment to solve complex problems. Write and present technical papers at Corps workshops and at professional conferences. Obtain project management training and engineering and design quality management training.

In addition to the above development, the individual is encouraged to attend the Corps eight weeks Intensive Soils Mechanics Course when offered. The individual will also obtain training in technical writing, effective briefing techniques, earthwork construction and inspection, streambank protection and erosion control, dam safety, deep foundations, ground modification, HTRW and pavement design. Some training may be optional and could occur beyond the developmental plan depending on available funding.

